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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,912	07/31/2003	Lech Pofelski	1509-430	7571

22879 7590 09/11/2006

HEWLETT PACKARD COMPANY  
P O BOX 272400, 3404 E. HARMONY ROAD  
INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER

CHANNAVAJJALA, SRIRAMA T

ART UNIT PAPER NUMBER

2166

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/630,912

Applicant(s)

POFELSKI, LECH

Examiner

Srirama Channavajjala

Art Unit

2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***RESPONSE UNDER 37 CFR 1.111***

1. Claims 1-11 are presented for examination.
2. Examiner acknowledges applicant's response filed on 6/3/2006
3. Examiner acknowledges applicant's "*preliminarily amendment*" filed on 7/31/2003, claims 4-6,9, have been amended.

***Drawings***

4. The Drawings filed on 7/31/2003 are acceptable for examination purpose.
5. In view of applicant's proposed drawing correction [6/3/2006] to fig 2, the objection as set forth in the previous office action is hereby withdrawn.

***Priority***

6. Acknowledgment is made of applicant's claim for foreign priority based on Application SI.No. 02354119.6 filed on 02 August 2002 under 35 U.S.C. 119(a)-(d), the certified copy has been filed in the Application No. 10/630,912, filed on 7/31/2003.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

***7. Claim 1-11 are rejected under 35 U.S.C. 101 because invention is directed to non-statutory subject matter.***

8. Regarding independent claim 1: The language of this claim merely describes the steps " A backup system for a database, the backup system being operable to: store a preceding checkpoint containing the contents of the database, receive at least one transaction log, the at least one transaction log identifying changes to the contents of the database; generate a new checkpoint by merging the preceding checkpoint and the at least one transaction log, and store the new checkpoint" This is believed to be "software program" per se is a "non statutory" subject matter [specification at page 5, line 14-33, and page 6-7] because, this raises a question as to whether the claim is directed merely to an "abstract" idea that is not in an environment or machine which would result in a "practical application" producing a concrete, useful and tangible result to form the basis of statutory subject matter under 35 USC 101. Furthermore, it is noted that claim 1 is merely generating "new checkpoint", and storing "new checkpoint", but does not clearly producing "concrete, useful and tangible" result, therefore, claim 1 is directed to non-statutory subject matter

9. Claims 2-9 are dependent from claim 1, and do not add any limitations that would render the claims statutory under 35 USC 101. Therefore, these claims are likewise rejected.

10. Regarding independent claim 10, The language of this claim merely describes the steps "a method of generating a checkpoint for a database, the method comprising the steps of : receiving at least one transaction log, the at least one transaction log identifying changes to the database; merging the transaction log with a preceding checkpoint to generate a new checkpoint". This is believed to be "software program" per se is a "non statutory" subject matter [specification at page 5, line 14-33, and page 6-7], because, this raises a question as to whether the claim is directed merely to an "abstract" idea that is not in an environment or machine which would result in a "practical application" producing a concrete, useful and tangible result to form the basis of statutory subject matter under 35 USC 101.

11. claim 11 dependent from claim 10, do not add any limitations that would render the claims statutory under 35 USC 101. Therefore, this claim is likewise rejected.  
For further guidelines see: "<http://www.uspto.gov/web/offices/pac/dapp/ogsheet.html>".

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. ***Claims 1-11 rejected under 35 U.S.C. 102(e) as being anticipated by Cha et al.***

***[hereafter Cha], US Publication No. 2003/0061537 filed on July 15, 2002, published on March 27, 2003.***

14. As to claim 1, Cha teaches a system which including 'a backup system [fig 1, element 111,112 for a database [fig 1, element 100], the backup system being operable to store a preceding checkpoint [fig 1, element 107] containing the contents of the database' [page 2, col 1, 0034, col 2, 0036], Cha is directed to logging and recovery scheme in databases, more specifically, database concurrency control among transactions particularly checkpoint is used for the process of making backup operations as detailed in page 2, col 2, 0036, backup system corresponds to fig 1,element 11,112; database corresponds to fig 1, element 100, checkpoint being managed by the checkpoint manager, fig 1, element 107;

'receive at least one transaction log [fig 1, element108, page 2, col 2, 0035], the

Art Unit: 2166

at least one transaction log identifying changes to the contents of the database' [ page 3, col 2, 0052, page 4, col 1, 0068], Cha specifically teaches transaction log record identifier that locates the log records of transactions [page 3, col 2, 0052], also Cha teaches update log records using "time stamp" log records as detailed in page 4, col 1, 0068;

'generate a new checkpoint by merging the preceding checkpoint and the at least one transaction log' [page 6, col 1, 0128-0131], and store the new checkpoint' [fig 1, page 6, col 1, 0130-0131].

15. As to claim 2, Cha disclosed 'sort the or each transaction log prior to merging the or each transaction log with the preceding checkpoint' [page 5, col 1, 0100].

16. As to claim 3, Cha disclosed 'receive a plurality of transaction logs, and wherein the transaction logs are sorted to combine the transaction logs prior to merging the transaction logs with the preceding checkpoint' [page 5, 0100, col 2, 0101].

17. As to claim 4, Cha disclosed 'checkpoint is stored on the data storage medium and the or each transaction log is sorted in the memory' [page 5, col 2, 0102].

18. As to claim 5, Cha disclosed 'store at least one transaction log prior to generating a new checkpoint' [page 6, col 1, 0128].

19. As to claim 6, Cha disclosed 'database system comprising a memory [fig 1, element 102], and being operable to store a database in the memory [fig 1-2, page 2, col 2, 0040], the database system being operable to update the database in response to a transaction, record the transaction in a log [page 4, col 1, 0068], and transmit the transaction log to the backup system [fig 1, page 2, col 1, 0034].
20. As to claim 7, Cha disclosed 'backup system is operable to transmit the checkpoint to the database system to rebuild the database' [page 2, col 2, 0036, line 1-3].
21. As to claim 8, Cha disclosed 'backup system is operable to store at least one transaction log after generation of the checkpoint [page 2, col 2, 0036, line 1-7], wherein the backup system is operable to transmit the at least one transaction log to the database system with the checkpoint' [page 2, col 2, 0036].
22. As to claim 9, Cha disclosed 'the management system comprising a data storage medium wherein a copy of the database is stored, the backup system being operable to transmit the checkpoint to the management system [page 2, 0036-0037].
23. As to claim 10, Cha teaches a system which including receive at least one transaction log [fig 1, element 108, page 2, col 2, 0035], the at least one transaction log identifying changes to the database' [ page 3, col 2, 0052, page 4, col 1, 0068], Cha



Art Unit: 2166

specifically teaches transaction log record identifier that locates the log records of transactions [page 3, col 2, 0052], also Cha teaches update log records using "time stamp" log records as detailed in page 4, col 1, 0068;

'merging the transaction log with preceding checkpoint to generate a new checkpoint' [page 6, col 1, 0128-0131], new checkpoint' [fig 1, page 6, col 1, 0130-0131].

24. As to claim 11, Cha disclosed 'sorting he or each transaction log prior to the step of merging the or each transaction log with the preceding checkpoint' [page 5, col 1, 0100].

***Response to Arguments***

25. Applicant's arguments filed on 6/13/2006 with respect to claims 1-11 have been fully considered and for examiner's response, see discussion below:

a) At page 2-4, with respect to claims 1-11, applicant argues that claim[s] generating and storing a new checkpoint and is therefore expressly included in one of the categories of statutory subject matter provided in 35 USC 101.

As to the argument [a], as stated above in the rejection of the claims 1-11 under 35 USC 101, they are directed to "software program" per se is a "non-statutory" subject matter because it merely is generating and storing new checkpoint not producing a "concrete, useful and tangible result.

Furthermore, ***claim 1*** do not have "practical application" because the "final result" by the claimed invention in the claim 1 elements particularly "*generating a new checkpoint.....and store the new checkpoint*" merely code or instructions or a data structure [*the IEEE definition of which can be found in the Interim Guidelines, Annex IV, page 50, and the in MPEP 2106*], or merely non-functional descriptive material for example data or non-functional arrangement of data structure but not producing "useful, tangible and concrete" result, therefore ,claim 1 is a non-statutory subject matter. The claimed invention is subject to the test of State Street, 149 F.3d at 1373-74,

47 USPQ2d at 1601-02. Specifically State Street sets forth that the claimed invention must produce a ***“useful, concrete and tangible result.”*** The Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility states in section IV C. 2 b. (2) (on page 21 in the PDF format):

The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had “no substantial practical application.”).

The court in State Street noted that the claimed invention in Alappat constituted a practical application of an abstract idea because it produced a *useful, concrete and tangible result* the display of a smoothed heart beat to a system user. The Federal Circuit further ruled that it is of little relevance whether a claim is directed to a machine or process for the purpose of a § 101 analysis. AT&T, 172 F.3d at 1358, 50 USPQ2d at 1451 (see the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Annex II).

The examiner reviewed the specification at page 5, line 14-33, and page 6-7 but was unable to find a practical real-world use of the result. ***If the applicant is able to***

***find one and inserts it into the claims provide the location the element[s] is found in the specification.***

**Interim Guidelines as indicated below:**

<<<http://www.uspto.gov/web/offices/pac/dapp/ogsheet.html>>>

No new matter should be entered

- b) At page 5-6, claim 1, applicant argues that Cha fails to disclose generation of a new checkpoint.
- c) At page 6, applicant argues that “cha fails to disclose storing a new checkpoint”

As to the above argument [b-c], firstly, cha is directed to transaction processing system, more specifically transaction[s] that including logging and recovery operations [page 1, 0013], secondly, Cha also specifically teaches “checkpoint manager” responsible for checkpointing the process of making backup copies of entire database from time to time” [page 2, 0036, line 1-3], thirdly, Cha specifically teaches “checkpointing scheme” and “checkpoint” log records [page 2, 0036, line 6-9, fig 1, element 107], checkpoint corresponds to Cha’s fig 1, element 107, furthermore, it is noted that Cha teaches generating both “begin\_checkpoint” and “end\_checkpoint” with respect to “transaction” is used [page 5, 0100], also, each checkpoint associated with specific transaction, log records are stored [page 6, 0128-0131], therefore, as best understood by the examiner, Cha not only teaches transaction processing system that generating “checkpoint”, but also generating “new checkpoint”.

Examiner applies above argument[s] to claims 2-9,11 and 10.

***Conclusion***

**The prior art made of record**

a. US Pub.No. 20030061537

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is 571-272-4108. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam, Hosain, T, can be reached on (571) 272-3978. The fax phone numbers for the organization where the application or proceeding is assigned is 571-273-8300 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

SC  
*Patent Examiner.*  
September 5, 2006.

  
SRIRAMA CHANNAVAJJALA  
PRIMARY EXAMINER